Practice with Speed and Velocity

Example) ① $S = \frac{d}{t}$

$d = 48\ m$

$t = 3\ s$

$= \frac{48\ m}{3\ s}$

$= 16\ m/s$

② ①

1) $t(S) = \left(\frac{d}{t}\right)t$

$d = 550\ mi$

$S = 55\ mi/hr$

$t = ?$

$\frac{St}{S} = \frac{d}{S}$

$t = \frac{d}{S}$

$= \frac{550\ mi}{55\ mi/hr}$

$= 10\ hr$

6) $t(S) = \left(\frac{d}{t}\right)t$ ①

$S = 150\ km/h$

$t = 2.5\ h$

$d = st$

$= (150\ km/h)(2.5\ h)$

$= 375\ km$

② ①

9) $S = \frac{d}{t}$ ①

$S = 330\ m/s$

$d = 2000\ m$

$t = \frac{d}{S}$

$= \frac{2000\ m}{330\ m/s}$

$= 6.06\ s$

② ①

Speed and Velocity Calculations

2) $\bar{v} = \frac{\bar{d}}{t}$

$\bar{v} = ?$

$\bar{d} = 850 \text{ mi SW}$

$t = 7\text{am} \rightarrow 4\text{pm}$

$= 9 \text{ hr}$

$= \frac{850 \text{ mi SW}}{9 \text{ hr}}$

$= 94.44 \text{ mi/hr SW}$

4) $\bar{v} = \frac{\bar{d}}{t}$

$\bar{v} = 10 \text{ m/s up}$

$d = 219 \text{ m}$

$t = ?$

$t = \frac{\bar{d}}{\bar{v}}$

$= \frac{219 \text{ m}}{10 \text{ m/s}}$

$= 21.9 \text{ s}$